

**tobii**  
dynavox Mini  
TD Navio  
Communication  
Device



## tobii dynavox Mini TD Navio Communication Device Instructions

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**tobii**

**tobii dynavox Mini TD Navio Communication Device**



## Product Information

### Specifications

- Safety Standards: Compliant with all listed Specifications and Standards
- Water Resistance: IP42 (do not submerge in water or any liquid)
- Battery: Rechargeable; degradation over time
- Charging: Use only supplied power adapter
- Usage Restrictions: Not a life supporting device; not for young children or individuals with cognitive disabilities without supervision

### TD Navio Safety & Compliance

## SAFETY INSTRUCTIONS

### Safety

The TD Navio device has been tested and approved as compliant to all the Specifications and Standards listed in , page 000 of this manual and in the 5 Technical Specifications, page 4. Nevertheless, in order to ensure safe operation of your TD Navio, there are a few safety warnings to bear in mind:

- No modification of this equipment is allowed.
- Repairs to a Tobii Dynavox device must only be performed by Tobii Dynavox or a Tobii Dynavox authorized and approved repair center.
- **Contraindication:** The TD Navio device should never be, for the user, the only means of communicating important information.
- In case of failure of the TD Navio device, the user cannot communicate using it.
- The TD Navio is water resistant, IP42. However, you should not submerge the device in water or in any other liquid.
- The user may never attempt to change the battery. Altering of the battery may cause risk of explosion.
- The TD Navio is not to be used as a life supporting device, and it shall not be relied on in case of loss of

function due to power loss or other causes.

- There could be a choking hazard risk if small parts detach from the TD Navio device.
- The strap and charging cable could present strangulation hazards to young children. Never leave small children unattended with the strap or charging cable.
- The TD Navio device shall not be exposed to or used in rain or weather conditions outside the Technical Specification of the TD Navio device.
- Young children or people with cognitive disabilities should not have access to, or use, the TD Navio device, with or without carry strap or other accessories, without parental or guardian supervision.
- The TD Navio device shall be used with care when moving around.

### **Avoiding Hearing Damage**

Permanent hearing loss may occur if earphones, headphones or speakers are used at high volume. To prevent this, the volume should be set to a safe level. You can become desensitized over time to high sound levels which may then sound acceptable yet still could damage your hearing. If you experience symptoms such as ringing in your ears, please lower the volume or stop using the earphones/headphones. The louder the volume, the less time is required before your hearing could be affected.

Hearing experts suggest the following measures to protect your hearing:

- Limit the amount of time you use earphones or headphones at high volume.
- Avoid turning up the volume to block out noisy surroundings.
- Turn the volume down if you cannot hear people speaking near you.

To establish a safe volume level:

- Set your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, without distortion.

The TD Navio device can produce sounds in decibel ranges that may cause hearing loss for a normal hearing person, even when exposed to for less than a minute. The maximum sound level of the unit is in parity with the sound levels that a healthy young person can produce while screaming. Since the TD Navio device is intended as a voice prosthetic, it shares the same possibilities and potential risks of causing harm to hearing. The higher decibel ranges are offered to enable communication in a noisy environment and should be used with care and only when needed in noisy environments.

### **Power Supply and Batteries**

The power source shall conform to the requirement of the Safety Extra Low Voltage (SELV) standard, and supply power with rated voltage which conforms to Limited Power Source requirement according to IEC62368-1.

- The TD Navio device contains a rechargeable battery. All rechargeable batteries degrade over time. Thus the possible usage times for the TD Navio after a full charge can become shorter over time than when the device was new.
- The TD Navio device uses a Li-ion Polymer battery.
- If you are in a hot environment, be aware that it can affect the ability to charge the battery. The internal temperature has to be between 0 °C/32 °F and 45 °C/113 °F for the battery to charge. If the internal battery temperature raises above 45 °C/113 °F, the battery will not charge.
- If this occurs, move the TD Navio device to a cooler environment to let the battery charge properly.

- Avoid exposing the TD Navio device to fire or to temperatures above 60 °C/140 °F. These conditions may cause the battery to malfunction, generate heat, ignite or explode. Be aware that it is possible, in a worst case scenario, for temperatures to reach greater than those stated above, for example, the trunk of a car on a hot day. So, storing the TD Navio device, in a hot car trunk could conceivably lead to a malfunction.
- Do not connect any devices with a non-medical grade power supply to any connector on the TD Navio device. Furthermore, all configurations shall comply with the system standard IEC 60601-1. Anyone who connects additional equipment to the signal input part or signal output part is configuring a medical system and is therefore responsible for ensuring that the system complies with the requirements of the system standard IEC 60601-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60601-1 certified equipment out-side of the patient environment. If in doubt, consult the technical services department or your local representative.
- The appliance coupler of the power supply or separable plug is used as the Mains Disconnection Device, please do not position the TD Navio device so that it is difficult to operate the disconnection device.
- Only charge the TD Navio battery in an ambient temperature of 0°C to 35°C (32°F to 95°F).
- Use only the supplied power adapter to charge the TD Navio device. Using unauthorized power adapters may severely damage the TD Navio device.
- For safe operation of the TD Navio device, use only the charger and accessories approved by Tobii Dynavox.
- The batteries are only to be changed by Tobii Dynavox personnel or specified designees. Replacement of lithium batteries or fuel cells by inadequately trained personnel could result in a hazardous situation.
- Do not open, or modify, the casing of the TD Navio device or the power supply, since you may be exposed to potentially hazardous electrical voltage. The device contains no serviceable parts. If the TD Navio device or its accessories are mechanically damaged, do not use them.
- If the battery is not charged or the TD Navio is not connected to the power supply, the TD Navio device will shut down.
- If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
- If the Power Supply Cord is damaged, it needs to be replaced by Service Personnel only. Do not use the Power Supply Cord until replaced.
- Disconnect the AC power plug of the Power adapter from the wall socket when not charging the device and disconnect the power cable from the device.
- Special regulations apply to shipping Lithium-ion batteries. If dropped, crushed, punctured, thrown, abused or short-circuited, these batteries can release dangerous amounts of heat and may ignite, and are dangerous in fires.
- Please reference IATA regulations when shipping lithium metal or lithium-ion batteries or cells:  
<http://www.iata.org/whatwedo/cargo/dgr/Pages/lithium-batteries.aspx>
- The Power adapter shall not be used without an adult or caregiver supervision.

## High Temperature

- If used in direct sunshine or in any other hot environment, the TD Navio device may have hot surfaces.
- The TD Navio devices have built-in protections to prevent overheating. If the interior temperature of the TD Navio device exceeds the normal operating range, the TD Navio device will protect its internal components by

attempting to regulate its temperature.

- If the TD Navio device exceeds a certain temperature threshold, it will present a temperature warning screen.
- To resume use of the TD Navio device as quickly as possible, turn it off, move it to a cooler environment (away from direct sunlight), and allow it to cool down.

### **Emergency**

Do not rely on the device for emergency calls or banking transactions. We recommend having multiple ways to communicate in emergency situations. Banking transactions should only be carried out with a system recommended by, and approved according to the standards of your bank.

### **Electricity**

Do not open the casing of the TD Navio device, since you may be exposed to potentially hazardous electrical voltage. The device contains no user serviceable parts.

### **Child Safety**

- The TD Navio devices are advanced computer systems and electronic devices. As such they are composed of numerous separate, assembled parts. In the hands of a child certain of these parts, including accessories, have the possibility of being separated from the device, possibly constituting a choking hazard or another danger to the child.
- Young children should not have access to, or the use of, the device without parental or guardian supervision.

### **Magnetic Field**

If you suspect that the TD Navio device is interfering with your pacemaker or any other medical device, stop using the TD Navio device and consult your physician for specific information about that affected medical device.

### **Third Party**

Tobii Dynavox assumes no responsibility for any consequence resulting from use of the TD Navio in a manner inconsistent with its intended use, including any use of the TD Navio with third-party software and/or hardware that changes the intended use.

### **Compliance Information**

The TD Navio is CE-marked, indicating compliance with the essential health and safety requirements set out in European Directives.

### **For Portable Devices**

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for typical hand held operations with the device contacted directly to the human body to the sides of the device. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.

### **CE Statement**

This equipment complies with the requirements relating to electromagnetic compatibility, the essential protection requirement of Electromagnetic Compatibility (EMC) Directive 2014/30/EU on the approximation of the laws of the Member States relating to electromagnetic compatibility and Radio Equipment Directive (RED) 2014/53/EU to meet the regulation of the radio equipment and telecommunications terminal equipment.

## **Directives and Standards**

The TD Navio complies with the following directives:

- Medical Device Regulation (MDR) (EU) 2017/745
- Electronic Safety IEC 62368-1
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Radio Equipment Directive (RED) 2014/53/EU
- RoHS3 Directive (EU) 2015/863
- WEEE Directive 2012/19/EU
- Reach Directive 2006/121/EC, 1907/2006/EC Annex 17
- Battery Safety IEC 62133 and IATA UN 38.3

The device has been tested to comply with IEC/EN 60601-1 Ed 3.2, EN ISO 14971:2019 and other relevant standards for the intended markets.

This device meets the necessary FCC requirements in accordance with CFR Title 47, Chapter 1, Subchapter A, Part 15 and Part 18.

## **Customer Support**

- For support, please contact your local representative or Support at Tobii Dynavox. In order to receive assistance as quickly as possible, make sure you have access to your TD Navio device and, if possible, an Internet connection. You should also be able to supply the serial number of the device, which you will find on the back of the device under the leg.
- For further product information and other support resources, please visit the Tobii Dynavox website [www.tobiidynavox.com](http://www.tobiidynavox.com).

## **Disposing of the Device**

Do not dispose of the TD Navio device in general household or office waste. Follow your local regulations for the disposal of electrical and electronic equipment.

## **Technical Specifications**

### **TD Navio**

Model	Mini	Midi	Maxi
Type	Touch Communication Device		
CPU	A15 Bionic chip (6-core C PU)	A14 Bionic chip (6-core C PU)	Apple M4 chip (10-core C PU)
Storage	256 GB	256 GB	256 GB
Screen Size	8.3"	10.9"	13"
Screen Resolution	2266 x 1488	2360 x 1640	2752 x 2064
Dimensions (WxHxD)	210 x 195 x 25 mm8.27 × 7.68 × 0.98 inches	265 x 230 x 25 mm10.43 × 9.06 × 0.98 inches	295 x 270 x 25 mm11.61 × 10.63 x 0.98 inches
Weight	0.86 kg1.9 lbs	1.27 kg2.8 lbs	1.54 kg3.4 lbs
Microphone	1×Microphone		
Speakers	2 × 31 mm × 9 mm, 4.0 ohms, 5 W		
Connectors	2×3.5mm Switch Jack Ports 1×3.5mm Audio Jack Port 1×USB-C Power Connector		
Buttons	1×Volume Down 1×Volume Up 1×Power Button		
Bluetooth®	Bluetooth 5.0	Bluetooth 5.2	Bluetooth 5.3
Battery Capacity	16.416 Wh	30.744 Wha	
Battery Run Time	Up to 18 hours		
Battery Technology	Li-ion Polymer rechargeable battery		

Model	Mini	Midi	Maxi
Battery Charge Time	2 hours		
IP Rating	IP42		
Power Supply	15VDC, 3A, 45 W or 20VDC, 3A, 60 W AC Adapter		

#### Power Adapter

Item	Specification
Trademark	Tobii Dynavox
Manufacturer	MEAN WELL Enterprise Co., Ltd
Model Name	NGE60-TD
Rated Input	100-240Vac, 50/60Hz, 1.5-0.8A
Rated Output	5V/9V/12V/15V/20Vdc, 3A, 60W max
Output Plug	USB type C

#### Battery pack

Item	Specification		Remark
	Mini	Midi/Maxi	
<b>Battery Technology</b>	Li-Ion rechargeable battery pack		
<b>Cell</b>	2xNCA653864SA	2xNCA596080SA	
<b>Battery Pack Capacity</b>	16.416 Wh	30.744 Wh	Initial capacity, new battery pack
<b>Nominal Voltage</b>	7,2 Vdc, 2280 mAh	7,2 Vdc, 4270 mAh	
<b>Charge Time</b>	< 4 hours		Charge from 10 to 90%
<b>Cycle Life</b>	300 cycles		Minimum 75% of initial capacity remaining
<b>Allowable Operating Temperature</b>	0 – 35 °C, ≤75%RH		Charge condition
	-20 – 60 °C, ≤75%RH		Discharge condition

## FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesired operation.

Modifications not expressly approved by Tobii Dynavox could void the user's authority to operate the equipment under FCC rules.

## For Part 15B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## FAQ

### • Q: Can I change the battery myself?

- A: No, only Tobii Dynavox personnel or specified designees should replace the batteries to avoid hazardous situations.


### • Q: What should I do if the device is mechanically damaged?

- A: Do not use the device. Contact Tobii Dynavox for repair or replacement.



- **Q: How can I prevent hearing damage while using the device?**
  - A: Limit headphone volume, avoid blocking out noisy surroundings, and set volume at a comfortable level without distortion.

## Documents / Resources

	<a href="#">tobii dynavox Mini TD Navio Communication Device</a> [pdf] Instructions Mini, Mini TD Navio Communication Device, TD Navio Communication Device, Navio Communi- cation Device, Communication Device, Device
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## References

- [👁️ Tobii Dynavox CN: \\_\\_\\_\\_\\_](#)
- [👁️ Tobii Dynavox Global: Assistive communication solutions](#)
- [👁️ Global leader in eye tracking for over 20 years - Tobii](#)
- [👁️ Tobii Dynavox Global: Assistive communication solutions](#)
- [User Manual](#)

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